



State of Nevada – Department Of Personnel

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
STAFF RESEARCH ASSOCIATE IV	35	B	10.769
STAFF RESEARCH ASSOCIATE III	33	B	10.770
STAFF RESEARCH ASSOCIATE II	31	B	10.771
STAFF RESEARCH ASSOCIATE I	29	B	10.772

SERIES CONCEPT

Employees in this series perform or supervise the performance of laboratory and/or field experimental procedures in support of academically-supervised research and teaching in the natural, physical, or social sciences. Fields of endeavor include, but are not limited to, anatomy, animal and plant sciences, biochemistry, cell and molecular biology, chemistry, ecology, geology, microbiology, pharmacology, physics, and related disciplines.

Perform analytical laboratory techniques for chemical and biological analysis by developing or following established procedures and interpreting findings in cell cloning; cytogenetics; recombinant DNA technology; DNA isolation and purification; light, scanning or electron microscopy; gas, gel, thin-layer, or high pressure liquid chromatography; electrophoresis; spectrometry; atomic absorption, UV-visible spectrophotometric and/or spectrofluorometric analysis; membrane analysis; enzyme, protein, virus, and other biochemical or biological assays; and related procedures such as animal surgery, in order to gather technical data related to the phenomena under investigation.

Participate or assist in teaching activities by discussing experimental procedures with students and working with research faculty in presenting, developing, or modifying portions of course material, in order to provide professional program support.

Instruct students and other laboratory personnel by demonstrating laboratory procedures, explaining the fundamentals of experimental methodologies, and assigning work, in order to teach sophisticated concepts and methodologies of a specialized discipline.

Retrieve scientific information by utilizing the library, online and other resources for literature searches, abstracting relevant data, reviewing theories and methodologies, and compiling or analyzing data for research projects to design and perform specialized techniques of research and scientific experimentation for manuals, manuscripts, reports or grant application formulation.

Maintain inventory of supplies; process purchase orders to replenish laboratory supplies and equipment, and compile information for review and analysis.

Handle, store, and dispose of radioactive reagents and wastes, controlled substances, and hazardous biologicals and chemicals by following standardized procedures in order to comply with federal and State regulations to maintain laboratory safety.

Operate and maintain scientific instrumentation by calibrating and monitoring equipment that may include, but is not limited to, amino acid analyzers; analytical balances; autoclaves; centrifuges; chart recorders; computers; cell counters; DNA sequencers or synthesizers; equipment for cell or molecular separations; gas or liquid chromatographs; gas detectors; light and electron microscopes; lyophilizers; luminometers; mechanical pipetting devices; radiation counters and detectors; stereotaxic equipment; pH meters; visible-ultraviolet or atomic absorption spectrophotometers; physiological stimulators; printers; surgical instruments; ultra microtomes; and water purification equipment, in order to perform analytical testing procedures, obtain data for analysis, and comply with quality control procedures.

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SERIES CONCEPT (cont'd)

Prepare equipment, specimens and supplies for instructional purposes and/or testing in the laboratory or field according to standardized procedures by formulating solutions; performing micro-technique and culture procedures, including staining; performing preliminary surgical/dissection procedures on laboratory animals for research; gel electrophoresis; preparing samples for radio-chemical analysis; constructing and testing laboratory instrumentation and equipment; pipetting fluids and preservatives; preparing smear and imprint impressions; processing and sectioning tissues; collecting, homogenizing and suspending tissues; and immunizing and collecting blood or cells from laboratory animals or humans, in order to set up research and teaching laboratories for experiments.

Perform related duties as assigned.

CLASS CONCEPTS

Staff Research Associate IV: Incumbents in this class work under general supervision of a principal investigator and perform the full range of duties outlined in the series concept in more than one area of specialization, and either perform or oversee the daily operations, instructional obligations, and/or investigations of the workplace. Incumbents engage in difficult and complex research projects in collaboration with academic supervisors, and make important original contributions pertaining to instructional, laboratory and/or field experimental procedures. With a specific objective, the selection of methods is frequently left to the incumbent, who typically contributes original ideas of major methodological significance to the execution of the investigation or assignment by proceeding both to resources with the general body of scientific knowledge and/or by application of trial and error experimentation.

Creatively design approaches in scientific or other methodologies for the field, laboratory or other workplace, and may assist in the development, editing and writing of operating procedures, progress reports, manuscripts, grant applications, or other similar documents. Incumbents may be requested to respond to policies and procedures set forth by regulatory agencies, and may supervise students, permanent and temporary employees, volunteers, or visiting scientists.

Consult with academic supervisors on the nature and general plan of approach to basic research problems; read and abstract scientific articles pertaining to exploration of research problems; proceed without obligatory specific direction to organize and resolve experimental protocols; plan, assign, and direct the work of untrained research associates; contribute original ideas of major significance for the execution or interpretation of laboratory and/or field phases of research; take complete charge of the execution of laboratory phases of major research projects over considerable periods of time, such as during prolonged absences of academic supervisors; exercise judgment, initiative, and resourcefulness in making decisions, consulting as needed with academic supervisors; and prepare complete written reports on all phases of laboratory and/or field work involved in research projects.

Staff Research Associate III: Incumbents work under general supervision and perform the full range of duties outlined in the series concept in more than one area of specialization, are expected to generate independent thinking and self-reliance to perform laboratory and/or field experimental procedures, and make original contributions for achieving the goals of the laboratory. Incumbents assist and respond to policies set forth by regulatory authorities that monitor the activities of the laboratory or workplace. Incumbents may supervise permanent and/or temporary employees.

Consult with academic supervisors on the nature and general plan of approach to basic research and instructional-related problems; read and abstract articles in the examination of research problems; contribute original ideas in the execution of laboratory and/or field phases of research; develop new techniques and train other staff personnel and students; perform specialized procedures in two ordinarily distinct occupational fields or scientific disciplines;

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CLASS CONCEPTS (cont'd)

may prepare complete written reports of laboratory and/or field experimentation; and may develop new instructional methodologies for the teaching environment.

Staff Research Associate II: Incumbents work under supervision of a senior laboratory research associate or principal investigator and perform the full range of duties outlined in the series concept. Incumbents are expected to perform instructional, laboratory and/or field experimental procedures in more than one area of specialization, occupational field or scientific discipline, and may be required to supervise permanent and/or temporary employees.

May perform (a) a wide variety of standard repetitive laboratory and/or field experimental procedures at the full operational or journey level of skill in one field or specialty; or (b) a limited variety of non-standard laboratory and/or field experimental procedures requiring ingenuity, resourcefulness, and adaptability to the special and changing needs of research in one specialized field; or (c) a limited variety or repetitive, but highly specialized laboratory and/or field experimental procedures.

Staff Research Associate I: Under close supervision, incumbents may perform the full range of duties outlined in the series concept in one area of specialization, and may provide training for new employees and supervise student employees and/or volunteer laboratory trainees.

Perform instructional, laboratory and/or field experimental procedures, and/or receive training in the more difficult procedures usually requiring a theoretical background in one scientific field; perform procedures of limited variety and/or work under close technical supervision, in their initial assignments. Originality in devising or revising laboratory and/or field experimental procedures is not ordinarily expected nor required at this level.

MINIMUM QUALIFICATIONS

SPECIAL NOTES AND REQUIREMENTS FOR ALL POSITIONS IN THIS SERIES:

- * In order to meet the needs of the recruiting agency, positions may require specialized backgrounds or unique skills which will be identified at the time of recruitment.

STAFF RESEARCH ASSOCIATE IV

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization and three years of professional experience in a research laboratory or field experimental study; **OR** one year of experience as a Staff Research Associate III in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Ability to: teach and train professional laboratory personnel and students; formulate and develop complex instructions; originate and implement new techniques and procedures; *and all knowledge, skills, and abilities required at the lower levels.*

STAFF RESEARCH ASSOCIATE III

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization and two years of professional experience in a research laboratory; **OR** one year of experience as a Staff Research Associate II in Nevada State service; **OR** an equivalent combination of education and experience. (*See Special Notes and Requirements*)

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MINIMUM QUALIFICATIONS (cont'd)

STAFF RESEARCH ASSOCIATE III (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: the theories, principles, and practices in the area of specialization; investigative research procedures in a scientific laboratory; and literature and resource materials in the field of specialization pertinent to original research projects. **Ability to:** apply research techniques to general project requirements; manage a project and design experimental protocol; present research data and findings to the scientific community; perform complex scientific analysis; modify procedures to achieve project goals; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Detailed knowledge of: new developments and research innovations in the area of specialization, such as anatomy, animal and plant sciences, biochemistry, cell and molecular biology, chemistry, ecology, geology, microbiology, pharmacology, physics, and related disciplines. **Ability to:** plan and organize techniques involved in conducting original research.

STAFF RESEARCH ASSOCIATE II

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization and one year of professional experience in a research laboratory; **OR** one year of experience as a Staff Research Associate I in Nevada State service; **OR** an equivalent combination of education and experience. *(See Special Notes and Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: the theories, principles, practices, and techniques in the field of specialization; research and investigative procedures in a laboratory setting; and literature and other resources of information in the field of specialization. **Ability to:** apply research techniques to research projects; teach and train professional laboratory personnel and students; understand and follow complex instructions; implement new techniques and procedures; manage the resources of a laboratory, field station, or other work site; operate and maintain sophisticated scientific instruments and equipment; *and all knowledge, skills and abilities required at the lower level.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: research techniques and methodology in the required area of specialization, such as anatomy, animal and plant sciences, biochemistry, cell and molecular biology, chemistry, ecology, geology, microbiology, pharmacology, physics, and related disciplines. **Ability to:** evaluate and modify established research protocols in order to accomplish testing needs.

STAFF RESEARCH ASSOCIATE I

EDUCATION AND EXPERIENCE: Bachelor's degree from an accredited college or university in the required area of specialization; **OR** an equivalent combination of education and experience. *(See Special Notes and Requirements)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: the theories and principles in the area of specialization. **Ability to:** understand and follow written and oral instructions; make appropriate analysis based on test data; make general decisions related to the operation of a laboratory; perform library research in scientific disciplines; and compile and record accurate data.

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MINIMUM QUALIFICATIONS (cont'd)

STAFF RESEARCH ASSOCIATE I (cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: research laboratory techniques in the area of specialization; research project goals and objectives; agency policies and procedures. **Ability to:** participate in original research and analysis for specific projects.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

ESTABLISHED:	<u>10.769</u> 7/1/99P 12/17/98PC	<u>10.770</u> 10/4/85R 4/11/86PC 7/1/87P 7/18/86PC	<u>10.771</u> 9/27/84 3/1/85 10/4/85R 4/11/86PC 7/1/87P 7/18/86PC	<u>10.772</u> 9/27/84 3/1/85 10/4/85R 4/11/86PC 7/1/87P 7/18/86PC
REVISED:		7/1/99P 12/17/98PC	7/1/99P 12/17/98PC	7/1/99P 12/17/98PC